

DETAILED ACTION

Examiner's Comments

1. This action is in response to communication filed 2-12-08. Claims 1-4, 6-10, 13, and 14 are pending.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
2. Claims 1-4, 6-10, and 13-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Haar (US Patent 5,400,652, as previously cited) in view of Makeev et al. (US Patent 3,830,121, as previously cited).
3. With respect to claims 1 and 4, Haar discloses a plate positioning system for presses having structure which discloses the steps of: moving a feed slide (16) between the punching die (12) of the punching press (10) and a transfer position located in front of the punching press; seizing a first panel (40a) in the rear area (as shown in figure 1) thereof wherein first connection means (grippers 26 and 28) of the feed slide (16), in the transfer position, seize a panel in the rear edge of said panel (40a) to advance it stepwise through said punching press in response to the cycle of

said punching press (column 2 second full paragraph), characterized in that. Haar does not disclose said first connection (grippers 26 and 28) means seize said panel exclusively from above. The grippers have to squeeze the panel from one jaw located above and one jaw located below the panel.

Makeev et al. teaches a positioning system for sheet material in which one system of gripping the panel is the use of pneumatic suckers (49 in figure 1) (column 5 lines 3-4) that grip the panel solely from above the panel. Examiner notes that the use of suction to move panels is well known and frequently illustrated in the art. All the claimed elements were known in the prior art and one skilled in the art could have combined the elements as claimed by known methods with no change in their respective functions, and the combination would have yielded predictable results to one of ordinary skill in the art at the time of the invention. Thus, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to replace the gripping means (grippers 26 and 28) of Haar with the gripping suction means (49) of Makeev et al. Examiner notes that no new and unexpected result occurs by changing the physical way that the grippers of Haar interact with the sheet panel. The panel is still capable of being gripped and progressed through the punching procedure.

4. With respect to claim 2, the apparatus of Haar in view of Makeev et al. discloses the method wherein said feed slide (16) is guided by a slide guideway (36) and is moved along a first axis (38) towards said punching die and away therefrom to a pick-up position, wherein said first connection means further are guided by the feed slide (16) and are preferably dislocated along a second axis (21) perpendicular to the first axis

(38), and wherein an advancement slide having releasable second connection means (grippers 32 and 34) is dislocated along the first axis (38) to feed a panel (40a) to a transfer position for a take-over by said first connection means with one panel being seized by said first connection means (suction means 49 of Makeev et al.) from above at the rear edge area during a punching step of the punching press in the transfer position which corresponds to the panel position for the first punching step of said punching press and the advancement slide brings a succeeding panel into the transfer position when said first connection means have reached their take-over position along the two axes.

5. With respect to claim 6, the suction cups of Makeev et al. are designed to grasp the panel from above so that panels can be easily be removed from a stacked pile of panels (2 in figure 1 of Makeev et al.). The combined apparatus of Haar in view of Makeev et al. would advance succeeding panels that are stacked vertically through the steps of the press.

6. With respect to claim 3, the apparatus of Haar in view of Makeev et al. the method wherein two feed slides (16 and 18) are guided by a slide guideway each and are dislocated along a first axis (38 or 20) between said punching die of said punching press and a transfer position, wherein said first connection means further are guided by the respective feed slide and are preferably dislocated along a second axis perpendicular to the first axis.

7. With respect to claim 7, when using any sort of suction device, the item being "sucked" is pulled closer to the suction device. In order for a suction seal to develop,

the sucked item must come into contact with the suction device. In this case, sheet 40a is sucked against the first connection means (suckers 49 of Makeev et al.).

8. With respect to claim 8, Makeev et al. discloses the suckers 49 are used to lift or lower panels (column 5 lines 2-4).

9. With respect to claim 9, Haar in view of Makeev et al. discloses the panel (40a) having a rear edge that is lifted by separate lifting means against said first connection means. In this case, a separate system of grippers (32 and 34) are used in conjunction with the first lifting means (suction cups 49 of Makeev et al.) that grip the rear edge and hold the panel (40a) while the panel is still in contact with the first gripping means.

10. With respect to claim 10, the suction means are active across a major width of the panel. One suction cup is located at one rear corner, and the other suction cup is located at the remaining rear corner.

11. With respect to claims 13 and 14, the first gripping means of the combined apparatus of Haar in view of Makeev et al. discloses the first connection means (suction cups 49 of Makeev et al.) engaging gores of said rear edge area which are defined between the panel surfaces to be punched out and said rear edge. The term gore here is used to just describe an area of the panel that is not punched out. As shown by Haar in figure 1, the initial grippers (26 and 28) are designed to grip in the gores of the panel (40a) and when replaced by the suction means of Makeev et al. (cups 49), the suction means will also grip the gores of the panel. The gripping means are disposed on a ledge. A ledge is defined as "a relatively narrow projecting part" (per www.dictionary.com). The cups are disposed on ledges 22 and 24 of Haar respectively.

In order for the pneumatic suction device of Makeev et al. to function, it must be coupled to a vacuum source.

Response to Arguments

1. Applicant's arguments filed with respect to claim 1 have been fully considered but they are not persuasive.

Applicant argues the patent to Haar (US 5,400,652) does not disclose "the rear edge area of the panel is seized by the first connection means." Examiner respectfully disagrees that the art of Haar does not disclose this. First of all, the rear edge is not specifically defined in the claim. Any side edge can read on the rear edge as it is arbitrary with respect to the rest of the limitations. However, even assuming that the rear edge is the trailing edge with respect to the feed direction, as clearly shown by figures 1 and 2, the rear edge area is gripped by grippers (28, 26). Examiner notes that the grippers are originating from the sides of the panel, but they are indeed gripping the rear edge area of the panel.

Applicant notes that the machine of Makeev et al. does not deal with punching panels, but rather cutting rolled metal. After the rolled material has been cut, flat panels are formed (see figure 1, sheet 4, pile of sheets 2) and then gripped by the suction grippers (49). Applicant further argues that Makeev et al. does not disclose lifting the panel from a rear edge. Examiner concedes that the art of Makeev et al. does not disclose lifting the panel from a rear edge, however, this is not the important teaching to be learned from the art of Makeev et al. Makeev et al. teaches that it is well known in

the art to use one sided suction means to grip a metal panel (column 5, lines 1-5).

Conclusion

2. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **JOSEPH DEFRANK** whose telephone number is (571)270-3512. The examiner can normally be reached on **Monday - Thursday; 9am-6pm EST**.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Boyer Ashley** can be reached on (571) 272-4502. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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